

**Vasaces** Champion, 1889, Biol. Centr.-Amer., Col. 4 (2): 111 (1889) [no incl. sp.], 128 (1890) [first incl. sp.].

Genotype: *Vasaces aeneipennis* Champion, 1890, *L.c.* 128, pl. 6, figs. 7, 7a-c. [Present designation.]

**Vodomarus** Champion, 1889, *L.c.* 111 (1889) [no incl. sp.], 143 (1890) [first incl. sp.].

Genotype: *Vodomarus quadrioveolatus* Champion, 1890, *L.c.* 143. [Monobasic.]

**Xanthochroa** Schmidt, 1846, Linn. Ent. 1: 17, 35.

Genotype: *Oedemera carniolica* Gistel, 1832, Faunus 1: 150. [Present designation.]

**Xanthochroina** Ganglbaur, 1881, Verh. zool.-bot. Ges. Wien 31: 98, 105.

Genotype: *Xanthochroina auberti* Abeille, Bull. Soc. Ent. France, 1876: CLXVI. [Monobasic.]

**Xanthomima** Semenow, 1900 [not Warren, 1897]. (See *Isoloxantha* Semenow, 1902, Horae Soc. Ent. Ross. 34: 646, which replaces this name.)

Genotype: *Xanthomima handlirschi* (Seidlitz), 1899, Naturgesch. Ins. Deutschl. 5(2): 832 (*Ananconia*). [Original designation and monobasic.]

**Zabriola** Fairmaire, 1901, Rev. Ent. 20: 198.

Genotype: *Zabriola obscurifrons* Fairmaire, 1901, *L.c.* 198. [Monobasic.]

**Zoubkovia** Seidlitz, 1899, Naturgesch. Ins. Deutschl. 5(2): 815. [Misspelling of *Zubkovia* Semenow, 1894; correctly spelled and refers to Semenow, 1894, on p. 830.]

**Zubkovia** Semenow, 1894, Horae Soc. Ent. Ross. 28: 454, 455, 467.

Genotype: *Zubkovia turcomanica* Semenow, 1894, *L.c.* 468. [Monobasic.]

**ZOOLOGY.**—*Description of a new species of amphipod of the genus Corophium from Adyar, Madras, India.*<sup>1</sup> K. NAGAPPAN NAYAR, University of Madras, S. India. (Communicated by Waldo L. Schmitt.)

Barnard (1935), Chilton (1921), Giles (1885, 1888, 1890), Stebbing (1940), and Walker (1904, 1905, 1909) have listed and described over 120 species of amphipods from Indian waters. While studying a collection of over 40 forms from the Madras coast, the author found the present form to be a new

# THE MORE IMPORTANT PUBLICATIONS GIVING GENOTYPE DESIGNATIONS FOR GENERA OF OEDEMERIDAE

LATREILLE, P. A. *Considérations générales sur l'ordre naturel des animaux*. . . 444 pp. Paris, 1810. [The appendix of this work lists genotypes. They are valid only where one name is listed, or if two or more are listed, the first name must be set off by the word "eujud." All others are here considered as not valid. (See Opinion Nos. 11 and 136.)]

WESTWOOD, J. O. *An introduction to the modern classification of insects*, 2 vols. 1838-1840. [The appendix to this work lists genotypes; pp. 1-48 appeared in 1838. (See Griffin, F. J., Proc. Ent. Soc. London 6 (3): 83-84, 1932.)]

DUPONCHEL, P. A. J. In D'Orbigny, *Dictionnaire universel d'histoire naturelle*, 13 vols. Paris, 1841-1845. [Some of the early volumes have the type species cited.]

BLANCHARD E. In Cuvier, G. [Disciples' edition of], *Le règne animal*. Paris, 1844. [The title page of this series states that the species figured is the type of the genus illustrated. Sherborn, C. D., 1922, Ann. Mag. Nat. Hist. (9) 10: 555-556) says that pages 324-340 (Oedemeridae there included) were issued in 1844.]

CROTCH, G. R. *The genera of Coleoptera studied chronologically (1735-1801)*. Trans. Ent. Soc. London, 1870: 41-52; *The genera of Coleoptera studied chronologically (1806-21)*, *ibid.*: 213-241. 1870. [Crotch attempts to designate genotypes, particularly in the second part, some of which are valid and many of which are not.]

SEMENOW, ANDREA. *Symbolae ad cognitionem oedemeridarum*. Horae Soc. Ent. Ross. 28: 449-474. 1894.

———. *De nonnullis oedemeridarum generibus*. *Ibid.* 34: 643-655. 1900. [These two articles designate a number of oedemerid genotypes.]

LUCAS, ROBERT. *Catalogus alphabeticus generum et subgenerum coleopterorum orbis terrarum totius*, pars 1 [all published], 696 pp. Berlin, 1920. [The name, if any, which follows the original generic citation (and only in that position) is a genotype designation according to the authors statement in the introduction.]

species. Of the 37 species known of the tubedwelling genus *Corophium*, two have been recorded from India. The present form, the third species, is the first to be recorded from Madras. Hence a full account of this new species and a comparison with the other Indian species were deemed fitting.

Large numbers of both males and females of this amphipod are found living in the

<sup>1</sup> Received May 8, 1950.

muddy bottom of the Adyar brackish water (under the San Thome Bridge). The females are more numerous than the males. These amphipods occur through out the year and are hardy enough to withstand the dilution of the medium when the river is cut off from the sea from April to October.

*Corophium madrasensis*, n. sp. Fig. 1

*Male*.—Head with front between the side lobes straight, slightly convex, or with a very low central obtuse-angular projection; eyes dark, small, and slightly oval. The side plates of the first pereon segment are apically fringed with three plumose setae. Antenna 1 reaching beyond the proximal end of the fifth joint of antenna 2; inner margin of the first joint fringed with rather long setae but without spines; the second joint a little shorter than the first and slightly more than twice as long as the third; flagellum not quite so long as the peduncle and composed of about 12 joints. Antenna 2, fourth joint more than twice as long as the third with lower margin produced distally into a strong forward-curving tooth below and a small tooth above; and a low narrow tooth or ridge at the lower inside surface at the proximal end; fifth joint nearly as long as the fourth; flagellum composed of one long and two short joints; the lower margins of the third, fourth, and fifth peduncular joints and the flagellum bear groups of long setae. First joint of the mandibular palp not produced distally where the characteristic plumose seta is borne. Second joint longer than the first.

The first gnathopod with the third and fifth joints densely setose, the fifth tapering distally, the palm slightly oblique, convex and front margin of joint fringed with slender spines; the seventh joint smooth and curved. The second gnathopod has the fourth joint fringed with the customary double row of extremely long setae and the seventh joint with three broad teeth.

Peraeopods 1 and 2, second and fourth joints moderately expanded; seventh joint as long as the sixth. Peraeopods 3 and 4 normal. Peraeopod 5 reaching beyond uropod 1, second joint well expanded and fringed on rear margin with long plumose setae.

The peduncle of uropod 1 has a pointed triangular cone at its distal end and a row of about four spines on outer margin and three spines on the inner margin. The outer ramus has three spines on outer edge besides the four or five

terminal spines and without any spines on the inner margin. The inner ramus has three lateral spines on the outer margin in addition to the three terminal spines and no spines on the inner margin. The peduncle of uropod 2 is smaller in size and has one thin spine at the distal end on the outer side. The rami are subequal in length and have no spines on their inner margins. The outer ramus has two lateral spines on its outer margin while the inner ramus bears only the terminal spines. Uropod 3 is very short. The ramus is shorter than the peduncle; one or two small and slender spines arise from the distal end of the inner margin of the peduncle. The ramus is provided distally with eight or nine long slender spines. Telson triangular, with obtusely pointed apex. Length of the male from front of the head to the end of uropods about 4.5 mm.

*Female*.—The female differs from the male principally in antenna 1 and antenna 2 and also in the number of spines in the uropods. Antenna 1 reaching to the distal end of the fifth joint of antenna 2; inner margin of first joint of peduncle bears three proximal spines and a few small setae; lower margin bears two to five distal forward-pointing spines; flagellum slightly shorter than the peduncle and composed of about eight to nine joints. Antenna 2, much smaller and not so strong as in male; the third joint bears two small spines at the lower distal end; fourth joint has four spines along the lower edge and two spines on the inner surface. The fifth joint is setose but devoid of any spines on the inner margin but has a large number of long setae. Flagellum composed of one long and one or two short joints. Gnathopods and pereopods are like those of the male.

The peduncle of uropod 1 is produced distally into a triangular lobe as in the male; the outer margin bears five or six spines and inner margin with four spines. Outer ramus has four spines on outer margin and without any spines on the inner margin. The inner ramus has four spines on the outer margin and no spines on the inner margin. The peduncle of uropod 2 with two small spines at the distal end. The outer ramus has four spines on the outer margin and the inner ramus with one spine on the outer margin. Both rami without spines on their inner margins. Uropod 3 is like that of the male.

*Type*.—A male, U.S.N.M. no. 90736, taken in the muddy bottom of the Adyar, brackish water (under the San Thome Bridge), Madras, India, by K. Nagappan Nayar.

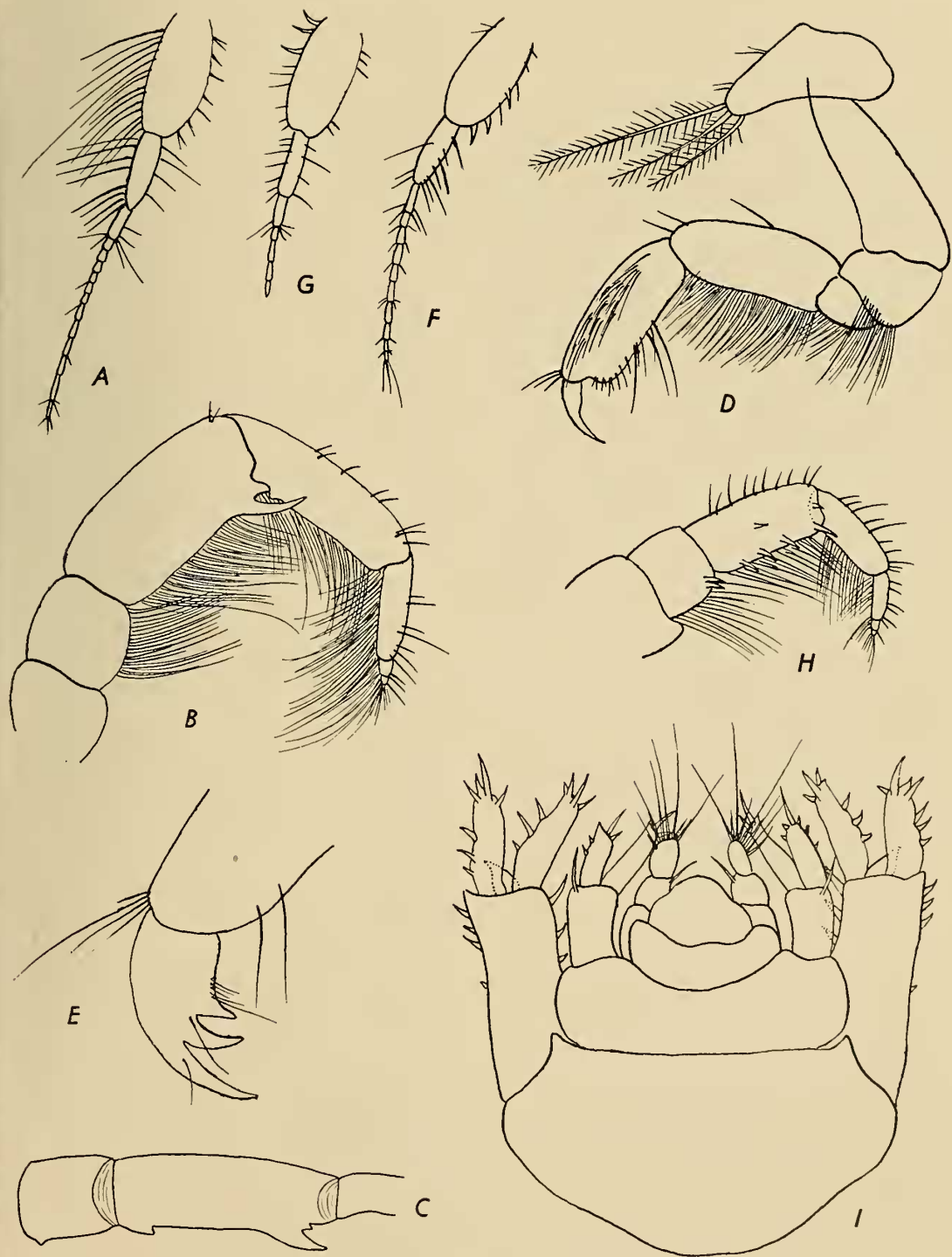


FIG. 1.—*Corophium madrasensis*, n. sp.: Male: a, Left antenna 1 from above,  $\times 45$ ; b, left antenna 2, side view,  $\times 45$ ; c, right antenna 2 from below,  $\times 45$ ; d, gnathopod 1,  $\times 90$ ; e, end of gnathopod 2,  $\times 177$ . Female: f, Left antenna 1, side view,  $\times 45$ ; g, left antenna 1 from above,  $\times 45$ ; h, left antenna 2, inside view,  $\times 45$ ; i, urosome and uropods,  $\times 90$ .



*Taxonomic remarks.*—Following Crawford (1937), in his division of the genus *Corophium* into three sections, we find that the Indian species *C. triaenonyx* Stebbing, with segmented urosome, belongs to section A, while the other one, *C. crassicorne* Brazellius, with unsegmented urosome, belongs to section B. In possessing separate urosome segments the present form clearly belongs to section A. In this feature, as well as in the pereopods, *C. madrasensis* resembles *C. triaenonyx* a great deal, but it differs from *C. triaenonyx* in not having six plumose setae fringed on the apex of side plates of the first pereon segment; also in having only four spines in a row on the lower edge on the fourth segment of antenna 2 of the female; and in the possession of a proximal tooth on the inner surface of the fourth joint of the second gnathopod of the male. Besides *C. triaenonyx*, there are 18 species that Crawford (1937) has included under section A, and four others established subsequently. Of these 22 species, 12—*C. volutator* (Pallas), *C. arenarium* Crawford, *C. salmonis*, *C. spinicorne* Stimpson, *C. maoticum* Sowinski, *C. nobile*, *C. chelicorne*, *C. spinulosum*, *C. robustum*, *C. mucronatum*, *C. curvispinum*, and *C. monodon* G. O. Sars—show no differentiation in segment four of antenna 2 in either sex, thus differing from the species here described. *C. aculeatum* Chevreux, *C. annulatum* Chevreux, *C. runcicorne* Della Valle, and *C. affine* Brazellius are extremely small, being only 0.5 to 1.5 mm in length, whereas *C. madrasensis* is definitely of larger build (4 to 4.5 mm). *C. setosum* Shoemaker is not only small (2 mm) but differs also in antenna 1 being as long as antenna 2. In *C. stimpsoni* Shoemaker and *C. brevis* Shoemaker the seventh joint of the gnathopod 2 has five or six teeth on the inner edge, while in *C. madrasensis* there are only three teeth on the inner edge of the seventh joint of the gnathopod 2. The flagellum of the first antenna in the male of *C. madrasensis* is composed of 12 joints, whereas in the male of *C. panamense* Shoemaker it is composed of 17 joints. *C. rioplatense* Giambiagi is a nonborrowing form distinct from *C. madrasensis*.

My thanks are due to Dr. C. P. Gnanamuthu, director, University Zoology Laboratory, Madras, for guidance, and to Clarence R. Shoemaker, associate in zoology, United States National Museum, Washington, for having gone through the paper and offering several valuable suggestions and criticisms and for helping me obtain some of his reprints not available in India.

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